

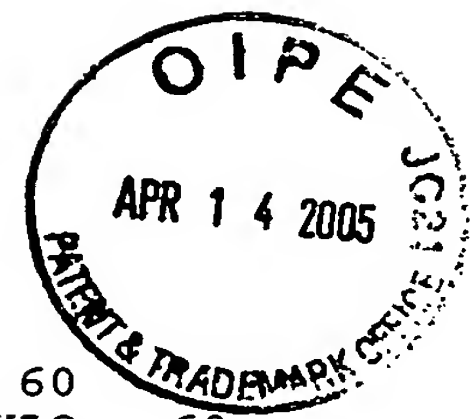


REPLACEMENT SHEET
FISH & RICHARDSON P.C.

Sheet 3 of 4

Title: MUTANT RECOMBINANT ADENO-ASSOCIATED VIRUSES
Applicants: Manuel Vega, *et al.* Attorney Docket No. 17109-003001 / 912
U.S. Serial No.: 10/022,390 Filing Date: December 17, 2001

FIGURE 3A



	10	20	30	40	50	60	
1	MPGFYEIVIKVPSDLDEHLPGISDSFVSWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ						60
2	MPGFYEIVIKVPSDLDEHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ						60
3	MPGFYEIVLKVPSDLDERLPGISNSFVNWVAEKEWDVPPDSMDPNLIEQAPLTVAEKLQ						60
4	MPGFYEIVLKVPSDLDEHLPGISNSFVNWVAEKEWELPPDSMDPNLIEQAPLTVAEKLQ						60
5	MPGFYEIVLKVPSDLDEHLPGISDSFVSWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ						60
6	MPGFYEIVIKVPSDLDEHLPGISDSFVNWVAEKEWELPPDSMDLNLIEQAPLTVAEKLQ						60
7	MATFYEIVIRVPFDVEEHLPGISDSFVDWVTGQIWELPPESDLNLTVEQPQLTVADRIR						60
C	M**FYE** : *VP*D***HLPGIS+SFV:WV****WELPP*SD**+*L*EQ**LTVA****						
	70	80	90	100	110	120	
1	RDFLVQWRRVSKAPEALFFVQFEKGESYFHLHLVETTGVKSMVLGRFLSQIRDKLVQTI						120
2	RDFLVQWRRVSKAPEALFFVQFEKGESYFHLHLVETTGVKSMVLGRFLSQIRDKLVQTI						120
3	REFLVEWRRVSKAPEALFFVQFEKGETYFHLHLVLIETIGVKSMVGRYVSQIKEKLVTRI						120
4	REFLVEWRRVSKAPEALFFVQFEKGETYFHLHLVLIETIGVKSMVGRYVSQIKEKLVTRI						120
5	REFLVEWRRVSKAPEALFFVQFEKGDSYFHLHLVETVGVKSMVGRYVSQIKEKLVTRI						120
6	RDFLTEWRRVSKAPEALFFVQFEKGESYFHMHLVETTGVKSMVLGRFLSQIREKLIQRI						120
7	RVFLYEWNKFSKQ-ESKFFVQFEKGEYFHLHTLVETSGISSMVLGRYVSQIRAQLVKV						119
C	R:FL++W***SK**E**FFVQFEKG+:YFH*H:L+ET:G**SMV:GR::SQI::*L*::*						
	130	140	150	160	170	180	
1	YRGIEPTLPNWFVAVTKTRNGAGGGNKKVDDCYIPNYLLPKTQPELQWAWTNMEEYISACL						180
2	YRGIEPTLPNWFVAVTKTRNGAGGGNKKVDDCYIPNYLLPKTQPELQWAWTNMEEYISACL						180
3	YRGVEPQLPNWFVAVTKTRNGAGGGNKKVDDCYIPNYLLPKTQPELQWAWTNMDQYLSACL						180
4	YRGVEPQLPNWFVAVTKTRNGAGGGNKKVDDCYIPNYLLPKTQPELQWAWTNMDQYLSACL						180
5	YRGVEPQLPNWFVAVTKTRNGAGGGNKKVDDCYIPNYLLPKTQPELQWAWTNMDQYISACL						180
6	YRGIEPTLPNWFVAVTKTRNGAGGGNKKVDDCYIPNYLLPKTQPELQWAWTNMEQYLSACL						180
7	FQGIPTQINDWVAITKVKK--GGANKVDSGYIPAYLLPKVQPELQWAWTNLDEYKLAAL						177
C	**G:EP:***W*A*TK*****GG*NKVVD:*YIP*YLLPK*QPELQWAWTN*: :Y:*A*L						
	190	200	210	220	230	240	
1	NLAERKRLVAQHLTHVSQTQEQNKENLNPNSDAPVIRSKTSARYMELVGWLVDRGITSEK						240
2	NLAERKRLVAHDLTHVSQTQEQNKENLNPNSDAPVIRSKTSARYMELVGWLVDRGITSEK						240
3	NLAERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVDRGITSEK						240
4	NLAERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVDRGITSEK						240
5	NLAERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVDRGITSEK						240
6	NLTERKRLVAQHLTHVSQTQEQNKENQNPNSDAPVIRSKTSARYMELVGWLVDKGITSEK						240
7	NLEERKRLVAQFLAESSQRS-QEASQREFSADPVIKSKTSQKYMALVNWLVEHGITSEK						236
C	NL+ERKRLVA*+L***SQ***Q*****+***S**PVI*SKTS**YM*LV*WLV*+GITSEK						
	250	260	270	280	290	300	
1	QWIQEDQASYISFNAASNSRSQIKAALDNAGKIMALTKSAPDYLVGPPADIKTNRIYR						300
2	QWIQEDQASYISFNAASNSRSQIKAALDNAGKIMALTKSAPDYLVGPPADIKTNRIYR						300
3	QWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGSNPPEDITKNRIYQ						300
4	QWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGSNPPEDITKNRIYQ						300
5	QWIQEDQASYISFNAASNSRSQIKAALDNASKIMSLTKTAPDYLVGQNPPEDISSNRIYR						300
6	QWIQEDQASYISFNAASNSRSQIKAALDNAGKIMSLTKTAPDYLVGQOPVEDISSNRIYK						300
7	QWIQENQESYLSFNSTGNSRSQIKAALDNATKIMSLTKSAVDYLVGSSVPEDISKNIWQ						296
C	QWIQE*Q*SY*SFN***NSRSQIKAALDNA:KIM+LTK:A*DYLVG: :**+DI: :NRI*:						
	310	320	330	340	350	360	
1	I LELNGYEPAYAGSVFLGWAQKRFGRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT						360
2	I LELNGYDPAYAGSVFLGWAQKRFGRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT						360
3	I LELNGYDPQYAASVFLGWAQKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT						360
4	I LELNGYDPQYAASVFLGWAQKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT						360
5	I LEMNGYDPQYAASVFLGWAQKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT						360
6	I LELNGYDPQYAASVFLGWATKKFGKRNTIWLFGPATTGKTNIAEAI AHAVPFYGCVNWT						360
7	I FEMNGYDPAYAGSILYGWCQRSFNKRNTVWLYGPATTGKTNIAEAI AHAVPFYGCVNWT						356
C	I *E+NGY*P:YA:S***GW***:F*KRNT*WL*GPATTGKTNIAEAI AH+VPFYGCVNWT						

REPLACEMENT SHEET

FISH & RICHARDSON P.C.

Sheet 4 of 4

Title: MUTANT RECOMBINANT ADENO-ASSOCIATED VIRUSES
Applicants: Manuel Vega, *et al.* Attorney Docket No. 17109-003001 / 912
U.S. Serial No.: 10/022,390 Filing Date: December 17, 2001

FIGURE 3B

```

      370      380      390      400      410      420
1  NENFPFNDCVDKMVIWWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIVTS 420
2  NENFPFNDCVDKMVIWWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIVTS 420
3  NENFPFNDCVDKMVIWWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIEPTPVIVTS 420
4  NENFPFNDCVDKMVIWWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIEPTPVIVTS 420
5  NENFPFNDCVDKMVIWWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIVTS 420
6  NENFPFNDCVDKMVIWWEEGKMTAKVVESAKAILGGSKVRVDQKCKSSAQIDPTPVIVTS 420
7  NENFPFNDCVDKMLIWWEEGKMTNKVVESAKAILGGSKVRVDQKCKSSVQIDSTPVIVTS 416
C  NENFPFNDCVDKM*IWWEEGKMT*KVVESAKAILGGSKVRVDQKCKSS*QI+*TPVIVTS

      430      440      450      460      470      480
1  NTNMCVIDGNSTTFEHQQPLQDRMFKFELTRRLEHDFGKVTQKEVKEFFRWAQDHSVTEV 480
2  NTNMCVIDGNSTTFEHQQPLQDRMFKFELTRRLEHDFGKVTQKEVKEFFRWAQDHSVTEV 480
3  NTNMCVIDGNSTTFEHQQPLQDRMFEFELTRRLDHDHDFGKVTQKEVKDFFRWASDHVTDV 480
4  NTNMCVIDGNSTTFEHQQPLQDRMFKFELTRRLDHDHDFGKVTQKEVKDFFRWASDHVTDV 480
5  NTNMCVIDGNSTTFEHQQPLQDRMFKFELTKRLEHDFGKVTQKEVKDFFRWASDHVTEV 480
6  NTNMCVIDGNSTTFEHQQPLQDRMFKFELTRRLDHDHDFGKVTQKEVKDFFRWAKDHVVEV 480
7  NTNMCVVVDGNSTTFEHQQPLEDRMFKFELTKRLPPDFGKITQKEVKDFFAWAKVNQVPV 476
C  NTNMC*V*DGNSTTFEHQQPL*DRMFKFELT+RL:*DFGK*TKQEVK+FF*WA:***+:V

      490      500      510      520
1  AHEFYVRKGGANKRPAPDDADKSEPKRA-----CPSVADPSTSDAEG 522
2  AHEFYVRKGGANKRPAPDDADKSEPKRA-----CPSVADPSTSDAEG 522
3  AHEFYVRKGGAKKR PASNDADVSEPKRE-----CTSLAQPTTSDAEA 522
4  AHEFYVRKGGAKKR PASNDADVSEPKRQ-----CTSLAQPTTSDAEA 522
5  THEFYVRKGGARKRPAPNDADISEPKRA-----CPSVAQPSTSDAEA 522
6  EHEFYVKKGGAKKR PAPSADADISEPKRV-----RESVAQPSTSDAEA 522
7  THEFKVPRELAKGAEKSLKRPLGDVTNTSYKSLEKRARLSFVPETPRSSDVTVDPAPL 536
C  :HEF*V+***A:***A:****.*****: +:****:***A*:

      530      540      550      560      570      580
1  APVDFADRYQNKCSRHAGMLQMLFPCKTCERMNQNFNICFTHGTRDCSECFP--GVSESQ 580
2  APVDFADRYQNKCSRHAGMLQMLFPCKTCERMNQNFNICFTHGTRDCSECFP--GVSESQ 580
3  P-ADYADRYQNKCSRHVGMNLMFLFPCKTCERMNQISNVCFTHGQRDCGECFPGMSESQPV 581
4  P-ADYADRYQNKCSRHVGMNLMFLFPCKTCERMNQISNVCFTHGQRDCGECFPGMSESQPV 581
5  P-VDYADRYQNKCSRHVGMNLMFLPCRQCERMNQNVDFICFTHGVMDCAECFP-VSESQPV 580
6  S-INYADRYQNKCSRHVGMNLMFLPCRQCERMNQNSNICFTHGQKDCLECFP--VSESQP 579
7  RPLNWNTRYDCKCDYHAQFDNISNKCDECEYLNRGKNGCICHNVTHCQICHG----- 588
C  :::+:**RY**KC**H:**:*****C::CE**N*::*:C**H*:*C.*C**...::+::

      590      600      610      620
1  PVVRKRTYRKLCAIHLLGRAPEIACSACDLVNVDLDDCVSEQ 623
2  PVVRKRTYRKLCAIHLLGRAPEIACSACDLVNVDLDDCVSEQ 623
3  SVVKKKTYQKLCPIHHILGRAPEIACSACDLANVDLDDCVSEQ 624
4  SVVKKKTYQKLCPIHHILGRAPEIACSACDLANVDLDDCVSEQ 624
5  SVVRKRTYQKLCPIHHIMGRAPEVACSACELANVDLDDCDMEQ 623
6  VSVVKKAYQKLCYIHHIMG-KVPDACTACDLVNVDLDDCI FEQ 621
7  -----IPWEKENLSDFGDFDDANKEQ 610
C  :+*:+:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*D*DD*:EQ
```